

mode. Now we know this fault well. The cause is usually dry-joints at the AN3821K capstan drive chip. But this time resoldering it failed to cure the fault. A new chip was required.

When John came back I asked him if trade was good.

"Better 'n ever" he said, "it's this 'ot weather. I likes a few 'ot spells. 'Ow old be you, by the way?"

I waved this question away as he headed for the door.

Record changers

Glancing through my notes on Collaro record-changers last month I was reminded of some of the other changers that used to send us grey back in those days. The Garrard was no fun, then there was the Philips range. I have to declare a personal bias here. From my earliest days in this trade I've been convinced that while Philips products are, electronically, superior to most, the company's mechanical products are too gentle and unconventional. The Philishave breaks this pattern in being robust, but Philips autochangers used to cause a lot of concern to us.

One or two of them resembled a kit of unlikely-looking parts. There was an elaborate and long spindle that had to be pulled out and reinserted at each loading, after which you had to juggle a detachable platform over it while trying to support the heavy pile of records. And most of the Philips changers I ever saw were well endowed with lots of very thin, interconnecting wire rods that the manual advised us to bend and crimp as necessary to set the various changer operations.

We used to struggle manfully, and sometimes managed to get one or another of them working by some fluke or other. But our spare bench gradually became cluttered with those we'd "put aside for a while". At this our service manager Ted got concerned and tackled a few himself – to show us that they could be fixed. But he was no more successful than the rest of us and, somewhat rattled, he decided to let them wait until the Philips TLO called on his monthly visit.

He called and drew back all pop-eyed, like a trapped rat, when Ted confronted him with the changers. But, to his credit, he and Ted managed to fix them all, though it took them the rest of the day and threw his schedule out. There were a few for him the next time he called, and the time after that. Then, the following month, he failed to turn up. We wondered whether he was ill.

We watched out for him when he was next due. This was easy, as we knew he would come striding towards the shop on the opposite pavement of the high

street at about ten o'clock. But there was no sign of him. Now Ted was a canny fish. He knew that after calling on us the rep walked on to Tom's, a friendly dealer a bit farther along the street. So he phoned Tom to ask him whether he had missed any of the chap's calls. He hadn't.

When the TLO was next due, Ted kept an eye on the reflections in the plate-glass windows of the shops opposite. Sure enough, at about ten, we saw him – with his collar pulled high, furtively loping past with a series of low, crouching bounds. Ted gave him most of the twenty minutes he usually spent at Tom's, then rang Tom and asked him to tell the rep that we had spotted him absent-mindedly strolling past and that it would be nice to see him. "Tell him we're just about to put the kettle on" he joked.

A few minutes later the rep breezed in, to be greeted with a nice cup of tea – and half a dozen more errand changers. And there at the bench he stood, bending this rod and crimping another until the changers grudgingly improved their behaviour.

Spanish electricity

Every Spanish house I'm familiar with has an automatic electricity cut-out box. These are set in clusters along the streets, cutting out if any household tries to draw more than its allotted 5.5kW at a time. They switch back in after a couple of minutes, provided the load has been suitably reduced.

The boxes are locked from the consumer by the electricity suppliers and, being both thermally and mechanically operated, they give trouble. This is roughly proportional to the number of times they pop open. When they fail we have to phone the supply people. And when they eventually amble along to poke about with the box we have to pay about £30, plus another £50 or so if they think that the mechanism is in need of replacement.

Instead of a fuse-box in the house we all have a 'consumer unit' box that's set into the wall. It contains a series of trips, plus a single live-to-earth resettable circuit-breaker. This latter device is handy, in a way. But the bad news is that the supply system in our part of Spain is wired in a Heath Robinson fashion. Sometimes the mains voltage falls so low that microwave ovens can't cook properly, while at other times we get high-voltage surges that blow the trips.

Last night, just as dusk was falling, our lights started to flicker and dim. After a series of recoveries they went off completely, to the sound of our trip-out tripping. It continued to trip when I reset it. Then the trip in the road popped open, and I noticed an acrid burning-plastic

smell from son John's bedroom-cum-study. It came from his PC's UPS machine, which was hot. So I disconnected it.

When our street-box reset itself, the trip inside the house fired again and the acrid smell intensified. I was puzzled, and checked the mains voltage. It was fluctuating wildly and rapidly. A scope check revealed that it was full of peaks and troughs. Sniffing about led me to my own computer's UPS unit, which was also hot and was the cause of the remaining smell. All was normal when I disconnected this one as well.

When I opened the two units it was clear that they had both been cooking separately. All very puzzling. I came to the conclusion that when John's unit had become faulty it had fed its rampant waveforms back into the common mains-supply leads, much as a TV receiver's chopper circuit can do (thus loosening the screw in the plug's negative lead). I reckon that this was what had upset the other unit.

A plumbing problem

Just as I had sorted that lot out our plumber friend Frank dropped in. While telling him about my problem I mentioned that there was no trade like mine for such inexplicable troubles. He reckoned that his was as bad, and went on to tell me about a recent problem he'd had.

His customer had complained that she couldn't draw water through her garden hose tap. Sure enough there was no water from the hose when the tap was turned, though the tap was new. He felt the pipe. Instead of being hard and heavy with compressed water it was light and pliable. So he went to the wholesaler, bought another tap, and fitted it. The results were the same.

When he unscrewed the hose fitting the tap worked. Curious, he refitted the original tap. This also worked, with no hose connected. He felt carefully along the whole fifty yards of hose for an obstruction, but couldn't find one. The hose was soft and pliable throughout its entire length. When he reached the hose fitting he disconnected it and tried to blow through it, which was impossible.

When he looked into it he discovered that the fitting had a polished and tapered plastic anti-return plug. This had been fitted the wrong way round during manufacture, and therefore closed when it was subjected to forward pressure.

"Good, wasn't it?" Frank commented. "It cost me half a day and the price of a tap I didn't need, and what could I charge the old dear for finding the nozzle fault? The nozzle thing isn't worth five bob!"